

REMARKS

In the final Office Action¹, the Examiner rejected claims 1, 6, and 7 under 35 U.S.C. § 102(b) as being anticipated by Quate et al. (U.S. Patent No. 7,294,503, hereafter "Quate"); rejected claims 1-7 under 35 U.S.C. § 102(e) as being anticipated by Zenhausern et al. (U.S. Patent Application Publication No. 2004/0011650, hereafter "Zenhausern"); rejected claims 8-12 under 35 U.S.C. § 103(a) as being unpatentable over Zenhausern in view of Lough et al. (U.S. Patent No. 5,900,481, hereafter "Lough"); and rejected claims 8-132 under 35 U.S.C. § 103(a) as being unpatentable over Zenhausern in view of Smith et al. (U.S. Patent No. 6,270,970, hereafter "Smith") and Lough. Claims 1-13 remain pending.

Applicants respectfully traverse the rejection of claims 1, 6, and 7 under 35 U.S.C. §102(b) as being anticipated by Quate.

Claim 1 recites a microchip, comprising, among other things, "a first substrate; and a second substrate connected with the first substrate to define a connecting surface therebetween, the first substrate and the second substrate defining a microchannel in the connecting surface by a first groove part of the first substrate and a second groove part of the second substrate," (emphases added). The Office Action has not demonstrated that Quate teaches or suggests at least the claimed first groove part of the first substrate and the claimed second groove part of the second substrate, and Applicants find no such teachings or suggestions within Quate.

¹ The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

² The header of the rejection references claims 8-13. However, based on the body of the rejection, it appears that the rejection is only applicable to claim 13.

Quate, at column 17, line 49, to column 18, line 2, discloses,

A microfabricated device of the invention is preferably fabricated from a silicon microchip or silicon elastomer. . . . The device contains at least one analysis unit having a main channel with a droplet extrusion region and a coincident detection region. . . . A microfabricated device can be transparent and can be covered with a material having transparent properties, such as a glass coverslip, to permit detection of a reporter, for example, by an optical device such as an optical microscope. (Emphases added).

Accordingly, Quate merely discloses a silicon microchip having a channel covered by a transparent material. Accordingly, Quate fails to teach a combination comprising “a first substrate; and a second substrate connected with the first substrate to define a connecting surface therebetween, the first substrate and the second substrate defining a microchannel in the connecting surface by a first groove part of the first substrate and a second groove part of the second substrate,” as recited in claim 1 (emphases added). For at least this reason, claim 1 distinguishes over Quate.

Claims 6 and 7 depend from claim 1 and thus distinguish over Quate at least due to their dependence.

Applicants respectfully traverse the rejection of claims 1-7 under 35 U.S.C. §102(e) as being anticipated by Zenhausern. The Office Action has not demonstrated that Zenhausern teaches or suggests at least the claimed first groove part of the first substrate and the claimed second groove part of the second substrate, and Applicants find no such teachings or suggestions within Zenhausern.

Zenhausern, at paragraph [0252], discloses,

FIG. 2 depicts one embodiment of a device according to the present invention, device 405. In this embodiment, concentration module 408 comprises microfluidic channel 400 with a physical constriction 410. Inlet port 401 and outlet port 402 are optionally provided as shown. The

channel and constriction may take substantially any form described above.
(Emphasis added).

Zenhausern does not teach that physical constriction 410 is defined by grooves formed on different substrates. Accordingly, Zenhausern fails to teach a combination comprising “a first substrate; and a second substrate connected with the first substrate to define a connecting surface therebetween, the first substrate and the second substrate defining a microchannel in the connecting surface by a first groove part of the first substrate and a second groove part of the second substrate,” as recited in claim 1 (emphasis added). Claim 1 thus distinguishes over Zenhausern.

Claims 2-7 depend from claim 1 and distinguish over Zenhausern at least due to their dependence.

Applicants respectfully traverse the rejection of claims 8-12 under 35 U.S.C. § 103(a) as being unpatentable over Zenhausern in view of Lough.

Claims 8-12 depend from claim 1 and require all the elements of claim 1. As discussed above, claim 1 distinguishes over Zenhausern. Lough fails to cure the deficiencies of Zenhausern. Accordingly, claims 8-12 distinguish over Zenhausern and Lough, alone or combined.

Applicants respectfully traverse the rejections of claim 13 under 35 U.S.C. § 103(a) as being unpatentable over Zenhausern in view of Lough and Smith.

Claim 13 depends from claim 12 and requires all the elements of claim 12. As discussed above, claim 12 distinguishes over Zenhausern and Lough, alone or combined. Smith fails to cure the deficiencies of Zenhausern and Lough. Accordingly, claim 13 distinguishes over Zenhausern, Lough, and Smith, alone or combined.

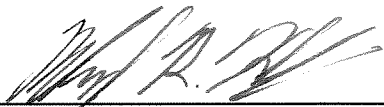
In view of the foregoing remarks, Applicants respectfully request reconsideration of this application and the timely allowance of the pending claims. Moreover, because the final Office Action fails to address the claim recitation of "[a] first substrate and [a] second substrate defining a microchannel . . . by a first groove part of the first substrate and a second groove part of the second substrate," Applicants submit that the finality of the rejection is premature and should be withdrawn. If the Examiner maintains the rejection, Applicants respectfully request that the Examiner clearly articulate how the references disclose the claimed first groove part of the first substrate and the claimed second groove part of the second substrate, such that Applicants may be given a fair opportunity to reply.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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